

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-007040**Date Inspected:** 18-Feb-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sun Wei / Sun Bo**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Components**Summary of Items Observed:**

The Caltrans (CT) Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Tower and Orthotropic Box Girders (OBG).

Heavy Equipment Shop Bay 11:

The QA Inspector performed a Visual Inspection on pickups to 3 copes, the top of one longitudinal stiffener and an area in the base metal directly in front of another stiffener on Lift 1 Skin E West. The 5 areas had been rejected by QA Inspector Lot Number B218 on 02/15/09. All 5 areas had been reworked and appeared to comply with contract requirements. The QA Inspector signed the Green Tag Documents after having been signed by ZPMC Representative Xu Le Feng and ABF Representative Chen Wen Liang. The QA Inspector randomly observed Mr. Chen attach Green Tag Number 4082.

OBG Sub-Assembly Bay 12:

The QA Inspector randomly observed 1 ZPMC helper utilizing a pencil grinder to clean up after Carbon Air Arc Gouging (CAAG) was performed on WJ 017 on Deck Plate 1AE-DP615-001.

The QA Inspector randomly observed ZPMC welder Liu Xie ID 066236, utilizing the Flux Cored Arc Welding (FCAW) Process in the 2G/2F (Horizontal Groove/Horizontal Fillet) Positions, with ZPMC Weld Procedure Specification (WPS) WPS-345-FCAW-2G (2F)-Repair-1 to weld an R2 repair to WJ 019 attaching a T=35 mm

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I-Rib to the base plate of Deck Plate 1AW-DP555-001. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed a ZPMC cutting torch operator, utilizing a hand held cutting torch to cut the copes at the bottom of the U-Rib to U-Rib Extension welds on Deck Plate 1AW-DP545-001.

The QA Inspector randomly observed 1 ZPMC helper utilizing an angle grinder to blend the U-Rib Extensions prior to fit up on Deck Plate 1AE-DP560-001.

The QA Inspector randomly observed 1 ZPMC helper utilizing an angle grinder to blend the U-Rib Extension welds to the base plate on Deck Plate 1AE-DP610-001.

The QA Inspector performed a 100% Visual Inspection and a random Magnetic Particle Testing (MT) Verification of WJ's 018 (2G/2F) and 254 (3G/3F), attaching a T=35 mm I-Rib to the base plate (018) and U-Rib Closure Diaphragm (254) of Deck Plate 1AE-DP610-001. There appeared to be no indications and the QA Inspector accepted the above listed welds.

The QA Inspector randomly observed 2 ZPMC helpers utilizing pencil grinders to blend the copes after torch cutting, at the bottom of the U-Rib to U-Rib Extension welds on Deck Plate 1AW-DP545-001.

The QA Inspector randomly observed ZPMC welder Han Guo Dong ID 062259, utilizing the FCAW Process in the 2G/2F (Horizontal Groove/Horizontal Fillet) Positions, with ZPMC WPS WPS-345-FCAW-2G (2F)-Repair-1 to weld an R2 repair to WJ 017 attaching a T=35 mm I-Rib to the base plate of Deck Plate 1AW-DP615-001. The work was being performed in accordance with ZPMC Weld Repair Request B-WRR2441. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. The QA Inspector also randomly monitored weld parameters and recorded them as follows: 290 amps, 29 volts with a travel speed of 500 mm per minute. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed ZPMC welder Song Da Wei ID 068852, utilizing the FCAW Process in the 3G (Vertical Groove) Position with ZPMC WPS WPS-B-T-2233-B-U2a to weld a U-Rib Extension, to a U-Rib on Deck Plate 1AW-DP560-001. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150-0042-2372, who represents the Office of Structural Materials for your project.

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Inspected By: Franco,Charlie

Quality Assurance Inspector

Reviewed By: Clifford,William

QA Reviewer